

REMARKS

Applicants have canceled claims 1-127 in favor of new claims 128-145. The amendments add no new matter.

Amendment Non-responsive

The Examiner stated that the amendment filed on July 27, 2007, while a bona fide attempt to reply, was non-responsive on the grounds that the amendment presented claims directed to a non-elected invention. Without addressing the propriety of this characterization, Applicants have canceled the claims that were added in the July 27 amendment and have replaced them with new claims corresponding more closely with the original claims. Applicants thank the Examiner for the opportunity to respond, and address herein the rejections made in Office Action dated February 27, 2007.

Objection to Drawings

The drawings stand objected to on the ground that they are not in consecutive order. Applicants submitted amended drawings in their response dated July 27, 2007 to address this issue. Applicants request the Examiner to withdraw the objection.

Objection to the Specification

The specification stands objected to on the ground that the Abstract did not reflect the elected invention and the use of proprietary trademarks should be indicated. Applicants request reconsideration. Applicants submitted a revised specification to indicate proprietary trademarks. Applicants submit herewith a new Abstract. Applicants believe that these amendments put the specification in order. Applicants request the Examiner to withdraw the objection.

Claim Rejections under 35 U.S.C. § 101

The claims stand rejected under 35 U.S.C. § 101 on the ground that they are directed to non-statutory subject matter. The Examiner stated that the method as claimed did not produce a tangible result. New claim 128 includes the step of displaying the results of the search on a user interface. This is a tangible result. Therefore, Applicants request the Examiner to withdraw the rejection.

The Examiner further stated that reference in claim 103 to “code implementing a method” referred to computer-executable code. Applicants have canceled claim 103 in favor of new claim 137 that specifically refers to computer code. Applicants request the Examiner to withdraw the rejection.

Claim Rejections under 35 U.S.C. § 112

First Paragraph

The claims stand rejected under 35 U.S.C. § 112, first paragraph for lack of enablement. The Examiner stated the specification did not enable one to translate a genetic profile into an identifier of a medical literature classification system. Applicants request reconsideration on the ground that computer tools were available as of the filing date to perform exactly this function.

Translating a genetic profile into an identifier of a medical literature classification system involves, first, examining the profile to identify the gene to which it corresponds. Anyone can examine a genetic profile to identify a gene with which it is associated using a database tool such as BLAST. The website at which this tool is available is: <http://www.ncbi.nlm.nih.gov/blast/Blast.cgi>. After choosing “nucleotide blast” one can enter a nucleotide sequence into the search field and then search for genes having sequences that are closest to the sequence entered. The terms returned by BLAST frequently are consistent with any National Center for Biotechnology Information database (including but not limited to the PubMed, Gene, Genome, Protein, SNP and EST databases). In a 2002 article (McCray et al., “The Lexical Properties of the Gene Ontology,” Proc. AMIA 2002 Annual Symposium, p. 504-508) the authors showed that terms from the Gene Ontology, which is used in BLAST, are compatible with MeSH and SNOMED, both examples of medical literature classification systems. Thus, the term returned by BLAST is likely, itself, to be an identifier of a medical literature system database.

Alternatively, if the term produced by the BLAST search is not already consistent with an identifier, it can be translated into MeSH terms using other computer tools available to the public, such as the Unified Medical Language System (UMLS), located at <http://www.nlm.nih.gov/research/umls/access.html>. MeSH is the U.S. National Library of

Medicine's controlled vocabulary used for indexing articles for MEDLINE/PubMed and its terms are identifiers of a medical literature database.

Thus, a person of skill in art at the time of the invention was able to enter a genetic profile into a computer system and use the computer system to produce an identifier for a medical literature classification system. For these reasons, Applicants request the Examiner to withdraw the rejection.

Second Paragraph

Various claims stand rejected under 35 U.S.C. § 112, second paragraph for indefiniteness.

1. Filtering the medical literature database

The Examiner stated that in claim 52 the phrase “filtering the medical literature database based at least on relevance to evidence-based medicine” was unclear. Applicants request reconsideration.

The specification identifies a number of evidence based medicine filters in paragraphs 0059-0061 and in Table 1, and shows how they are used. The specification makes it clear that the evidence based medicine filter is a search string that is used along with the identifier of the medical literature database as co-queries to interrogate the medical literature database. For example, in Table 1, the query involves (1) the “selected MeSH term” (e.g., the gene) AND (2) the filtering query (“{(Publication type: ...)”).

Applicants have replaced claim 52 with new claim 128. Claim 128 recites the step of “using a computer system to search the medical literature database for medical literature articles relating to the one or more identifiers using an evidence based medicine filter.” Applicants believe it is clear enough from the specification that using an evidence based medicine filter refers using a second search string that is designed to retrieve articles directed to evidence-based medicine. Therefore, Applicants request the Examiner to withdraw the rejection.

2. Identifying one or more literature articles

The Examiner stated that in claim 52 the phrase, “identifying one or more literature articles ...” made it unclear what the purpose of filtering was. Applicants believe that new claim 128 makes it clear that the database is being searched with both the identifier and with the “filtering”

query so that the found articles relate to both. Therefore, Applicants believe the pending claim is definite.

3. Partial genetic code

The Examiner stated that the term “partial genetic code” in claim 53 was indefinite. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have amended the claims to eliminate this term.

4. Generic

The Examiner stated that the term “generic” in claim 77 was indefinite. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have amended the claims to eliminate this term.

5. When used with a gold standard set of citations

The Examiner stated that the phrase “when used with a gold standard set of citations” in claim 81 and the term “gold standard” in claim 98 was indefinite. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have amended the claims to eliminate this phrase and term.

6. Evidence based medicine articles

The Examiner stated that the phrase “Evidence based medicine articles” in claim 83 was indefinite. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have amended the claims to eliminate this phrase.

7. High specificity

The Examiner stated that the term “high specificity” in claims 84-89 lacked antecedent basis. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have canceled these claims.

8. High sensitivity

The Examiner stated that the term “high sensitivity” in claims 84-89 lacked antecedent basis. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have canceled these claims.

9. Physical findings

The Examiner stated that the term “physical findings” in claim 100 lacked antecedent basis. Without agreeing to the propriety of this rejection, and in order to advance prosecution, Applicants have canceled these claims.

10. Claim 103

The Examiner stated that certain phrases in claim 103 were indefinite. Applicants have replaced claim 103 with new claim 137. Claim 137 tracks the language of claim 128. Applicants addressed the Examiner’s concerns with respect to these phrases in items 1 and 2 above. More specifically, the filtering code represents a co-search string used along with the identifier to search the literature database. Articles that match both queries – the identifier and the evidence filter – are then displayed. Accordingly, Applicants believe that claim 137 is not indefinite. Applicants request the Examiner to withdraw the rejection.

In view of the foregoing amendments and remarks, Applicants request the Examiner to withdraw the rejections under 35 U.S.C. § 112, second paragraph.

Claim Rejections under 35 U.S.C. § 102

Claims 52-58, 72-75, 77, 100 and 103 stand rejected under 35 U.S.C. § 102 as anticipated by Rappaport (U.S. 2002/0007285). Applicants traverse on the ground that Rappaport did not disclose all elements of the present invention, namely, Rappaport did not show searching the medical literature database for medical literature articles using an evidence based medicine filter.

Rappaport refers to methods of creating a “Labstory” document, a document containing information about a particular patient. (See Rappaport, paragraph 0025.) When information about a lab test on a patient is received, e.g., into a Labstory document, the code associated with that test is used to query a database referred to as an “Evidence Database” to retrieve information from the

Evidence Database for incorporation into the Labstory document. (See paragraph 0021 of Rappaport.) However, the Evidence Database is not a medical literature database, such as MEDLINE or PubMed. Rather, it is a database constructed for the purpose of serving Labstory. Rappaport makes this clear in, for example, Figure 4 and paragraphs 0064 and 0127-0135. Paragraph 0135 states that the Evidence Database can include a query into a database. Paragraph 0134 states that the Evidence Database may include pre-selected content. However, it is clear that Rappaport's Evidence Database is not a medical literature database as that term is used in the present claims.

Creation of the Evidence Database of Rappaport apparently involves searching medical literature databases for "relevant" articles. However, there is no indication that Rappaport uses an evidence based medicine filter for the search, and as the claims require. Accordingly, Rappaport did not disclose every element of claim 128 or claim 137 and did not anticipate those claims.

The rejected dependent claims include all the elements of the independent claim from which they depend. Because Rappaport did not describe every element of the independent claim, it did not anticipate the invention of any claims depending from it.

Claim Rejections under 35 U.S.C. § 103

Claims 59 and 60 stand rejected under 35 U.S.C. § 102 as obvious over Rappaport (U.S. 2002/0007285) in view of Davies et al. (U.S. 2003/0046114). The Examiner stated that Davies showed patient profiles including single nucleotide polymorphisms and haplotype information. Applicants traverse.

As demonstrated above, the primary reference, Rappaport, did not show an element of the invention, namely, filtering a medical literature database based at least on relevance to evidence-based medicine. Davies does not demonstrate this element. Therefore, the combination of Davies and Rappaport did not render the invention obvious.

Application No.: 10/779,569
Response dated: March 31, 2008
Reply to Non-Final Office Action of October 15, 2007

Claim Objections

Claims 53-60 stand objected to on the ground they contain a grammatical error. Applicants have introduced new claims that do not contain the grammatical error. Applicants request the Examiner to withdraw the rejection.

CONCLUSION


Applicants submit that this paper fully addresses the Office Communication mailed October 15, 2007. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned attorney at (650) 493-9300. The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No. 29954-701.201).

Respectfully submitted,

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